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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/813,306

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Osamu Kasono

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EXAMINER

CHU, KIM KWOK

ART UNIT

PAPER NUMBER

2653

DATE MAILED: 01/28/2004

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/813,306

Applicant(s)

KASONO ET AL.

Examiner

Kim-Kwok CHU

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 1/2/04 (paper 10).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Response to Remarks

1. Applicant's Remarks filed on January 2, 2004 (paper 10) have been fully considered.

(a) Applicant states that the prior art of Van Rosmalen does not teach or suggest each feature of independent claim 3 as amended (page 6 of the Remarks, first 2 lines). Accordingly, the amended feature of Applicant's controller "for outputting no signal if the height of the foreign material is lower than the floating height of the immersion lens" is included in the prior art. For example, Van Rosmalen's detector 65 produces a signal which indicates the deviation between the position of the measurement spot 81 and the instantaneous position of the surface 1b (Fig. 1). However, when the disk surface variation such as foreign objects, dust or any kind of soiling is under a predetermined height limit, Van Rosmalen's controller 83 and 85 will not activate the coils 55a-55c because the immersion lens 17 is still under a reliable and efficient position (column 7, lines 50 and 51).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 2-8 are rejected under 35 U.S.C. § 102(e) as being anticipated by Van Rosmalen et al. (U.S. Patent 6, 130,418).

Rosmalen teaches an optical head apparatus having all of the elements and means as recited in claims 2-8. For example, Rosmalen teaches the following:

(a) as in claim 3, the optical head is in an optical path of a light beam between an objective lens 15 and an information recording medium 1 (Fig. 1);

(b) as in claim 3, an immersion lens 17 positioned at a height with respect to a surface of the information recording medium (Fig. 1; column 38-54);

(c) as in claim 3, a detector 65 that measures a height of a foreign material to a surface of the information recording medium 1 (Fig. 1; detector 65 measures the recording medium's

surface in order to maintain a proper height; a foreign material such as dust molecules and surface unevenness are always exist in the air gap under detection by detector 65; column 2, lines 27-34, 38-48);

(d) as in claim 3, a controller 83 for outputting a control signal corresponding to the height of the foreign material if the height of the foreign material is higher than the floating height of the immersion lens (Fig. 1; maintaining proper distance; column 2, lines 27-34, 38-48);

(e) as in claim 3, the controller 83 for outputting no signal if the height of the foreign material is lower than the floating height of the immersion lens (Fig. 1; if the height of a foreign material is lower than the proper floating height, there is no need to change the height of the immersion lens 17; for example, data mark having a certain height will not trigger the controller as a foreign material having a height higher than the normal floating height);

(f) as in claim 3, a movement unit 55a-55c that moves the immersion lens 17 to a position higher than the height of the foreign material, the movement unit moving the immersion lens by a distance corresponding to the control signal (Fig. 1; column 7, lines 13-17, 47-60);

(g) as in claim 2, the movement unit includes a magnetic field generator 55a-55c for generating a magnetic field with an intensity corresponding to the control signal (Fig. 1);

(h) as in claim 2, a magnet 53 integrally provided with the immersion lens 17 (Fig. 1; magnet 53 is joined with immersion lens 17);

(i) as in claim 2, said controller 83 outputs the control signal for the magnetic field generator to generate a magnetic force for moving the immersion lens 17 to the position higher than the height of the foreign material in accordance with the detection result of said detector (Fig. 1; column 2, lines, 38-48);

(j) as in claim 4, the detector 65 is arranged at an upstream position of the immersion lens 17 in a rotational direction of the information recording medium (Fig. 1);

(k) as in claim 5, the detector 65 is arranged in a same radial position as the immersion lens (Fig. 1; detector 65 is located in a direction of the radius of the immersion lens 17);

(l) as in claim 6, an illumination light source 71 that illuminates an incident light beam toward the surface of the information processing medium 1 (Fig. 1);

(m) as in claim 6, the illumination light source 71 is oriented in a manner such that the incident light beam is reflected on the surface of the information recording medium in a

first direction when the information recording medium is free from foreign material, and, if a foreign material is disposed on the surface of the information recording medium, the incident light beam is scattered by the foreign material in a second direction toward the detector (Fig. 1; inherent property because a foreign material such as a protrusion on the medium surface 1 scatters an irradiated light beam in different directions);

(n) as in claim 7, the detector 65 generates a light detection signal proportional to an amount of incident light that is scattered by the foreign material (Fig. 1; inherent property of the detector 65 because it detects the variation of light intensity which includes any scattered light as long as the scattered light is reflected back to the lens 59a); and

(o) as in claim 8, a delay circuit that delays the control signal by a predetermined time (Fig. 1; the controller 83 inherently includes a delay circuit such as registers and processor unit which delay a control unit along the input to output operation).

4.. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C.
20231 Or faxed to:

(703) 872-9306 (for formal communications intended for
entry. Or:

(703) 746-6909, (for informal or draft communications,
please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park
II, 2021 Crystal Drive, Arlington. VA., Sixth Floor
(Receptionist).

Any inquiry of a general nature or relating to the status of
this application should be directed to the Group receptionist
whose telephone number is (703) 305-4700.

Any inquiry concerning this communication or earlier
communications from the examiner should be directed to Kim CHU
whose telephone number is (703) 305-3032 between 9:30 am to 6:00
pm, Monday to Friday.

Kim-Kwok CHU
Examiner AU2653
January 23, 2004

(703) 305-3032

William Korzuch
WILLIAM KORZUCH
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KE 1/23/04